

Application No. 10/752,428
Amendment Dated 03/27/06
Reply to O.A. Mailed 09/27/06

AMENDMENT TO THE CLAIMS:

The following claims replace all prior versions and listings of claims in the application:

1. (Currently Amended) A computer PCI-based mezzanine card (PMC) for data transfer in a network of multiple computer cards, comprising:
 - ~~a circuit card comprising a PCI bus;~~
 - ~~a data bus connector for connecting the PCI-based mezzanine card (PMC) – mounted to the to a data bus of a circuit card and connected to the PCI bus for access to processing resources and memory resources of the circuit card;~~
 - a multi-port fabric switch comprising a network port that allows the switch to connect directly to a second switch on the network; and
 - ~~a PCI-to-switch fabric bridge, comprising a port connected between to the fabric switch and the data bus connector.~~

2. (Currently Amended) A system for networking multiple computer cards for data transfer, comprising:

a plurality of networked circuit cards, each card comprising:

a processor connected to a PCI bus;
a PCI-based mezzanine card (PMC), mounted connected to the
circuit card and connected to the PCI bus for access to processing resources and
memory resources the processor of the circuit card, comprising a switch connected to a
network and a bridge that is connected between the switch and the circuit card data
bus;

~~a multi-port fabric switch comprising a port for connecting said mezzanine~~
~~card to~~ ~~a second mezzanine card in said network; and~~
~~a PCI-to-switch fabric bridge comprising a port connected to the fabric~~
~~switch,~~

wherein each switch is directly connected to at least one other switch over the network, and

each PMC bridge can bridge data transfer from each processor between each circuit card's data bus and each PMC switch that is connected to the network.

3. (New) The card of claim 1, wherein, when the switch is directly connected to the second switch over the network, the PMC allows data transfers through the network to and from the bus of the circuit card.

4. (New) The card of claim 1, wherein the bridge comprises an edge node that is the

terminating point for data signals received from the network through the switch.

5. (New) The card of claim 1, wherein the switch further comprises a plurality of network ports for connecting the switch directly to a plurality of other switches on the network.

6. (New) A system 1. (Currently Amended) A device for digital processing, comprising:

 a circuit card comprising a processor connected to a data bus;
 a PCI-based mezzanine card (PMC), comprising a switch and a bridge,
 wherein the switch comprises a network port that allows the switch to connect directly to other switches on a network and a bridge that is connected between the switch and the circuit card data bus.

7. (New) The device of claim 6, wherein, when the switch is directly connected to another switch over the network, the PMC allows data transfers through the network to and from the processor of the circuit card.

8. (New) The device of claim 6, wherein the bridge comprises an edge node that is the terminating point for data signals received from the network through the switch.

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9. (New) The device of claim 6, wherein the switch further comprises a plurality of network ports for connecting the switch directly to a plurality of other switches on the network.

10. (New) The device of claim 6, wherein the bus is a PCI bus.

11. (New) The system of claim 2, wherein the data bus is a PCI bus.

12. (New) The system of claim 2, wherein each bridge comprises an edge node that is the terminating point for data signals received from the network through each switch.

13. (New) The system of claim 2, wherein a data bus space on the data bus of a first circuit card of the plurality of circuit cards on the network comprises an address range with blocks that are mapped to the processor on a second circuit card of the plurality of circuit cards on the network.

14. (New) The system of claim 13, wherein when the processor of the first circuit reads or writes into the data bus space, the data is routed over the network to the processor on the second circuit card.